

Applicants respectfully traverse the rejection of the claims under 35 U.S.C. 112. Claims 44, 48, 53, 55 and 56 have been amended to address the Examiner's criticisms. The word "and" has been replaced by —or— in claim 44. In addition, with respect to the Examiner treatment of claims 44 and 47, [to wit

“[C]laim 43... has been treated as inclusive of separate or simultaneous surface-treating with one reagent chosen from the list on claim 43 and another from the list of claim 44 as well as a single surface-treatment step with a species that is listed in both claims. [Office Action page 2, section 3., third paragraph].”]

In applicants' view the Examiner's treatment of claim 44 and claim 47 is correct; and it is correct because it is the only way to presently read a dependent claim which calls for both “at least one reagent” and “at least one polymer”. These two recitations correspond to originally filed claims 14 and 15.

In Claim 48 a positive recitation of the energetic softener has been inserted. Claims 53, 55 and 56 have been amended in accordance with the Examiner's suggestions.

Applicants respectfully traverse the rejection of the claims on reference grounds.

Claim 43 is exemplary; it reads

43. (Amended) A method for producing a propellant powder for a gun ammunition, comprising
providing a mono-, di-, or tri-basic propellant, in the form of powder granules,
surface-treating said granules of a mono, di, or tri-basic propellant powder with at least one reagent selected from the group consisting of polyether, polyurea,

polybutadiene, polyamide, poly-3-nitratomethyl-3-methyl oxetane, glycidylazide polymer, bis (2,2-dinitropropyl) acetal, bis (2,2-dinitropropyl) formal, dinitrodiazaalkane, alkyl nitrate ethyl nitramine, as ethyl nitrate ethyl nitramine, and butyl nitrate ethyl nitramine.

Claims 52 and 53 call for spraying in a rotating drum or incubating in an impregnating solution or applying mixtures or by a two-stage consecutive treatment. Not only are the recitations of Claim 43 not taught by the applied art; but also the applied art fails to suggest the dependent claims; the remoteness of the descriptions of the applied art from the recitations of claims 52 and 53 underscore the latter statement. For the completeness of the file wrapper, applicants enclose herewith copies of the German patent [DE 199 07 809C2] which issued on the counterpart German application.

Applicants respectfully traverse the rejection of the claims under 35 U.S.C. 102 as anticipated by Willer '325.

Willer '325 does not anticipate the claims of the application. Applicants rely on the MPEP Section 2131 for the proposition that a unitary reference properly applied under Section 102 must provide written description of each and every element of the rejected claim(s). Willer does not satisfy that condition. [the reliance on Menke, penultimate line of page of the Office Action is inconsistent with PTO policy as expressed in MPEP Section 2131.]

Willer relates to high energy solid propellants which are clean, large launch vehicle solid propellants; it does not relate to gun ammunition. Willer provides mixtures of isocyanate curable PGN [polyglycidyl nitrate] binder and a reduced amount of energetic ammonium nitrate oxidizer and aluminum or magnesium solid fuel particulate

particles. Most of the description is directed to the production of the PGN. As the Patent Office can see at column 6 lines 40 et seq one of the PGN's is a viscous light yellow liquid.

The rejected claims do not relate to the use of "PGN's" as propellants for large launch vehicles. Moreover, examination of the reference at column 3 lines 10-24; column 5 lines 54 to column 6 line 2 and column 8 reveals that there is no description in those portions of the reference which relate to surface treating of particulate matter.

Applicants respectfully traverse the rejection of Claims under 35 U.S.C. 102 over Lutz. At column 3 lines 64 et seq., Lutz indicates that the "mixtures of the present invention are useful in preparation of propellant composition. Generally they are use in colloidal mixtures..."

At column 2 line 43 et seq Lutz describes his composition as comprising an admixture of two or more NENA's [alkyl nitrate ethyl nitramines and dinitroxy diethyl nitramine.] or a mixture of these in a colloidal mixture with nitro cellulose to produce propellants and rocket fuels.

In fact there appears to be no Lutz description of admixing a propellant and the at least two nitramines, for any purpose. The Examples appear to be directed to production of low temperature components. Accordingly, the U.S. PTO allusion to "must contact it and in the broadest reasonable sense of the term, to coat it" [Office Action page 4 section 6 last paragraph] is unsupported by the record in the file wrapper.

Applicants respectfully traverse the rejection of Claims under 35 U.S.C. 103 over O'Meara does not describe the claims under rejection. As The MPEP states, in Section 2131, a one-to-one correspondence between the claims and a single reference [applied by

the Patent] must exist to advance a rejection for anticipation. O'Meara does not describe the reagents of the rejected claims. Moreover, O'Meara does not suggest applicants claims.

O'Meara at column 3 describe a nitrocellulose base with or without nitroglycerine. At column 3 O'Meara relates to an energetic binder particulate 10 and states that

"Dispersed within the particulate 10 is a deterrent 16.... The deterrents are thermoplastics...includ[ing] polyvinylacetal, polystyrene, polyethylene, polyisoprene and mixtures thereof...Preferably materials include cellulose acetates. [Column 3 lines 37-65]"

Lutz does not make up for the deficiencies of O'Meara, as the Lutz reference is directed to preferred colloidal suspensions and requires two nitramines. The requirements of Lutz are antithetical to the description of the O'Meara manufacture.

Reconsideration and an early allowance are respectfully solicited.

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MARKED UP VERSION OF CLAIM AMENDMENTS

44. (Amended) The method for producing a propellant powder for gun ammunition of Claim 43, comprising

providing a mono-, di-, or tri-basic propellant, in the form of powder granules,

surface-treating said granules of a mono-, di-, [and]or tri-basic propellant powder

with at least one polymer selected from the group consisting of polyester, polyether, polyurethane, polyurea, polybutadiene, polyamide, and cellulose ester; and

recovering particles of said mono-, di-, [and] or tri-basic propellant powder surface-treated with said polymer, wherein the recovered particles are in dry form.

48. (Amended) The method of Claim 43, wherein the propellant powder is surface treated with an [the] energetic softener which is at least one member selected from the group consisting of alkyl nitrate ethyl nitramine, nitric acid ester; bis(2,2-dinitropropyl) acetal, bis(2,2-dinitropropyl) formal, and dinitrodiazaalkane. --

53. (Twice Amended) The method of Claim 43, wherein at least two of said at least one reagent [is] are applied either as a mixture [of the two] or by a two-stage, consecutive treatment.

55. (Twice Amended) The method of Claim 51, wherein said powder granules are coated with [each of] said reagent.

56. (Twice Amended) The method of Claim 53, wherein said powder granules are coated with said at least two of said at least one [each of said] reagent.